

CLAIMS

What is claimed is:

1. An interface device for connecting a camera that captures video images in the non-visible electromagnetic spectrum to a camcorder, the camcorder having a hot shoe, the

5 camera having a connector, comprising:

a mechanical interconnect coupled to the camera and to the camcorder,

whereby a portable video imaging system is formed.

2. The interface device of claim 1, wherein said mechanical interconnect comprises:

10 a baseplate to which the camera is secured; and

a mount extending from said baseplate, said mount connectable to the hot shoe.

3. The interface device of claim 2, wherein said baseplate comprises a bottom surface;

15 further comprising an upper plate connected to and spaced apart from said bottom surface of said baseplate.

4. The interface device of claim 3, wherein said upper plate comprises a rear flange extending substantially upward therefrom, said rear flange comprising a cutout

20 therethrough.

5. The interface device of claim 4, further comprising a connector attached to said rear flange, said connector connectable to the connector on the camera.

6. The interface device of claim 5, further comprising a casing attached to said baseplate, said casing partially enclosing said connector.

5 7. The interface device of claim 3, further comprising a video cable extending between the camera and the camcorder.

8. The interface device of claim 7, wherein said baseplate further comprises:

an outer wall;

10 an aperture in said outer wall; and

a curved passageway adjacent said aperture;

wherein said video cable extends through the space between the camera and said baseplate, through said curved passageway and through said aperture in said outer wall.

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9. The interface device of claim 3, wherein

said mount further comprises an upper platform connected to said hot shoe mount,

said baseplate further comprises an aperture therethrough, and

20 said mount extends through said aperture to position said upper platform between said bottom surface of said baseplate and said upper plate, said upper platform trapped therebetween to secure said mount to said baseplate.

10. The interface device of claim 2, wherein said baseplate comprises a bottom surface, further comprising a plurality of posts extending upward from said bottom surface.

5 11. The interface device of claim 10, wherein each said post comprises an aperture therethrough and the camera includes apertures corresponding to said apertures in said posts, further comprising a plurality of fasteners, each fastener extending through one aperture and into the camera, whereby the camera is secured to said baseplate.

10 12. The interface device of claim 10, wherein each said post comprises an aperture therethrough, further comprising:

an upper plate connected to and spaced apart from said bottom surface of said baseplate, said upper plate comprising apertures corresponding to said apertures in said ports; and

15 a plurality of fasteners, each fastener extending through one aperture and into the camera.

13. The interface device of claim 2, further comprising a power connection between said hot shoe mount and the camera.

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14. The interface device of claim 13, wherein said power connection comprises a wire contained entirely within the interface device.

15. The interface device of claim 2, further comprising a control cable extending between the camera and the camcorder.

16. The interface device of claim 15, wherein said control cable is contained entirely within the interface device.

17. The interface device of claim 1, wherein at least a portion of said mechanical interconnect is integral to the camera.

18. An interface device for connecting a camera that captures video images in the non-visible electromagnetic spectrum to a camcorder, the camcorder having a hot shoe, the camera having a connector, comprising:

a mount comprising a hot shoe mount connectable to the hot shoe;

a baseplate secured to said mount, said baseplate comprising

a bottom surface,

an outer wall, and

an aperture in said outer wall;

an upper plate connected to and spaced apart from said bottom surface of said

baseplate, said upper plate comprising a rear flange extending

therefrom, said rear flange comprising a cutout therethrough, wherein

said camera is secured to said upper plate;

a connector attached to said rear flange, said connector connectable to the

connector on the camera;

a video cable extending from said connector attached to said rear flange
through the space between said upper plate and said bottom surface of
said baseplate, and through said aperture in said outer wall; and
a power cable connecting said hot shoe mount to said connector attached to
said rear flange.

19. A system for recording video images in a set of wavelengths other than visible
light wavelengths, comprising:

a camera that captures video images in the non-visible electromagnetic
spectrum;
a camcorder; and
an interface device that mechanically connects said camera to said camcorder.

20. The system of claim 19, wherein said camera captures video images in the infrared
portion of the electromagnetic spectrum.

21. The system of claim 19, wherein said interface device further comprises a power
connection between said camera and said camcorder.

22. The system of claim 19, wherein said interface device further comprises a video
data connection between said camera and said camcorder.

23. The system of claim 19, wherein said interface device further comprises a control
signal connection between said camera and said camcorder.

24. A method of manufacturing a system for recording video images in a set of wavelengths other than visible light wavelengths, comprising:

providing a camera that captures video images in the non-visible
5 electromagnetic spectrum;

providing a camcorder; and

mechanically securing said camera to said camcorder, whereby a portable
video imaging system is formed.

10 25. The method of claim 24, further comprising connecting a power cable to said camera and to said camcorder, wherein said camera receives electric power from said camcorder.

26. The method of claim 24, further comprising connecting a video cable to said
15 camera and to said camcorder, wherein said camcorder receives video data from said camera.

27. The method of claim 24, wherein said mechanically securing is performed with a plurality of fasteners.

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